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Spaceport News

John F. Kennedy Space Center - America's gateway to the universe

Bottom left, space shuttle Discovery lifts off on its final scheduled mission, STS-133, from Launch Pad 39A at Kennedy Space Center at 4:53 p.m. EST on Feb. 24. Above: Discovery launches on its maiden voyage, STS-41D, on Aug. 30, 1984.

Discovery's Final Launch

Pages 4 and 5

INSIDE . . .

Final Print Issue of Spaceport News

Due to the CMO shortfall that impacts center services, Spaceport News no longer will be printed. The publication will continue to be published every other Friday online at: **http://www.nasa.gov/centers/kennedy/news/snews/spnews_toc.html**

Kennedy adds Florida touch to National 9/11 Flag

By Rebecca Regan
Spaceport News

The contributions of NASA and Kennedy Space Center were stitched into the fabric of one of the nation's most recognizable symbols Feb. 18 when flags from Florida's Spaceport were sewn into an American flag recovered near ground zero following the Sept. 11, 2001, attacks.

"The National 9/11 Flag" is on a cross-country journey to be restored to its original 13-stripe design using pieces of fabric from American flags destined for retirement in all 50 states. The Kennedy Space Center Visitor Complex was the official stop for the state of Florida on Feb. 18.

"For our site to be chosen, you know, on one hand I believe is all together fitting and proper because what we do at Kennedy Space Center is dare mighty things on behalf of the American people and all of humankind," said Joe Dowdy, special operations manager at Kennedy. "Some of that involves sacrifice and certainly this flag is an incredible demonstration of what free people sometimes have to be called upon to do, to sacrifice even their own lives."

The Brevard Police and Fire Pipes and Drums kicked off the stitching ceremony, followed by the U.S. Air Force 45th Space Wing Honor Guard stationed at nearby Patrick Air Force Base and more than a dozen 9/11 first responders.

A host of Floridians were invited to take part in the stitching ceremony, including Danny McKnight, the retired Army Colonel who led the ground convoy in 1993's battle of Mogadishu, Somalia, the combat depicted in the film "Black Hawk Down."

NASA/Kim Shiflett

"The National 9/11 Flag" was raised in the Rocket Garden at the Kennedy Space Center Visitor Complex after Florida heroes stitched pieces of history to the star spangled banner.

Craig Carson, an agent with the Brevard County Sheriff's Office who was nominated to take part in the ceremony, spent eight to nine months helping with the recovery effort in New York City.

"It was miraculous," Carson said. "It seemed like the whole world showed up to New York City that day to help. It was amazing."

The flag has become one of the most enduring symbols of the recovery from the attack.

"A few days after the collapse of the World Trade Center this flag was hanging on a scaffolding at 90 West Street, which was a building directly south of the World Trade Center that was heavily damaged when the south tower collapsed," said Jeff Parness, director, founder and chairman of the "New York Says Thank You Foundation."

Charlie Vitchers, the construction superintendant for the cleanup of ground zero, sent a crew up to rescue the flag, Parness said. Seven years later, Vitchers donated the flag to the organization so it could make a new mark in American history.

LeRoy Haynes was a supervising fire marshal and commander of the Bronx/Queens Fire Department and was on the corner of New York City's Church and Vesey streets, headed to the emergency command center at the World Trade Center with co-workers when the first tower began to crumble.

"We all ran and that big cloud of dust and smoke started to come at me," Haynes recalled. "That cloud was coming faster than I could run, the wind blew my helmet off and at that point in time all I could do was dive under a car."

Haynes survived and gathered all the strength and spirit he could to help set up a triage center on Broadway later that day. Haynes said he remembered seeing the flag in the aftermath of the attack.

"The flag was a mess. It was full of holes, parts were burned, singed, and it looked like it had been in a war," Haynes said. "It was amazing that it was one of the few things still standing."

Earlier this year, "The National 9/11 Flag" became a symbol of healing at the funeral of 9-year-old Christina Taylor Green. Born Sept. 11, 2001, Green was killed at an event held by Congresswoman Gabrielle Giffords in Tucson, Arizona, on Jan. 8. Giffords is the wife of STS-134 Commander Mark Kelly.

"We realize that there are so many things that will never be made whole again, but this flag can be made whole again," Parness said. "There's this cathartic element of 'Well, I can finally do something. I can hold this needle and thread and try to make this whole.'"

The flags of Kennedy join other rich pieces of history, including parts of the flag that President Abraham Lincoln was laid on in 1865 after he was shot at Ford's Theatre in Washington, D.C.

"I kind of think of America as this magnificent mosaic," Dowdy said. "It's composed of all these various events, various places that make us a very special country. So there's this wonderful parallel about what this flag represents and what we represent here at Kennedy."

The star-spangled banner, which brings new meaning to national collaboration, later stood proud amongst rockets and capsules from NASA's Mercury, Gemini and Apollo days at the visitor complex's Rocket Garden. Including hundreds of people at Kennedy, "The National 9/11 Flag" is estimated to have touched more than 100 million lives.

Once complete, "The National 9/11 Flag" will become part of a permanent collection of the National September 11 Memorial Museum being built at the World Trade Center site. There, America's flag can evoke a sense of pride, unity and hunger to keep achieving greatness, just as the nation's space program has for more than half a decade.

NASA/Kim Shiflett

"The National 9/11 Flag" is folded in the Rocket Garden of the Kennedy Space Center Visitor Complex.

2012 budget outlines NASA's future goals

By Rebecca Regan
Spaceport News

Protecting Earth, uncovering distant worlds, and expanding the frontiers of technology and science are the goals President Barack Obama outlined for NASA in his Fiscal Year 2012 budget. NASA Administrator Charlie Bolden and Kennedy Center Director Bob Cabana shared with workers what that means for Kennedy during an All-Hands meeting at the center's Training Auditorium on Feb. 17.

In all, the budget calls for $18.7 billion for the agency to support programs in human spaceflight, science, aeronautics, space technology, and education.

"This is $2.1 billion coming to the Kennedy Space Center," Cabana said. "We have to make sure that we are using the dollars that are given to us in the most efficient, cost-effective manner to deliver on what we need to do and to accomplish our tasks for the future."

Exploration efforts will receive $931 million to enable commercial space launches to low Earth orbit (LEO) and to develop human exploration capabilities beyond LEO.

"We need commercial spaceflight. We have to enable it and we have to make it successful, because that's how we're going to get our crews to the International Space Station," Cabana said. "It is a huge responsibility that has been entrusted to us and we can't fail. We have to do it correctly."

Cabana said his hope for the future is that commercial endeavors in the form of experiments, hardware, and payloads also will begin flying along with government missions, bringing more opportunities to the Space Coast.

Bolden added, working with the commercial industry will provide a vibrant space economy by making space travel more capable and affordable.

"We need to focus on what's really hard from a government point of view, what nobody else can do, and that's explore beyond low Earth orbit," Cabana added.

To accomplish the feat of taking humans to the outer reaches of space, Kennedy will continue to develop human exploration capabilities. While NASA's Marshall Space Flight Center in Huntsville, Ala., will continue to design and build launch vehicles, and Johnson Space Center in Houston will handle the development of multi-purpose crew exploration vehicles, Cabana reassured workers that Kennedy will remain the hub for ground operations, processing, and launching.

"Our core capabilities are not changing," Cabana said. "We are the experts in processing, launch, and recovery of spacecraft and we're going to continue to do that."

"This is the home of human spaceflight for the nation and essentially the headquarters for human spaceflight in the world and we intend to keep it that way," Bolden added.

Kennedy is set to receive $352 million for Space Operations, which provides funding for Space Shuttle Transition and Retirement, ISS, the Launch Services Program, and includes the 21st Century Space Launch Complex architecture upgrades that will help support multiple programs. It also could attract more commercial launch companies to the center and enable the launch of NASA's future heavy-lift vehicle.

Also, included in Kennedy's budget is $281 million for science, which will be used to purchase expendable rockets for NASA's Launch Services Program (LSP) based at the center. LSP currently is targeting the launch of six science missions this year, including three Earth-surveying missions called Glory, Aquarius, and the National Polar-orbiting Operational Environmental Satellite System Preparatory Project (NPP). The program also will send spacecraft beyond our atmosphere -- the Juno mission to Jupiter, the Grail mission to the moon, and the Mars Science Laboratory rover, called Curiosity, to the Red Planet.

"Launch Services is a very stable, fully funded program and it's very important to us here at Kennedy," Cabana said.

Space technology will be funded with $29 million for ongoing research and technology efforts taking place at Kennedy, including in-situ resource utilization.

Education is another goal of the president, administrator, and center director. It will be implemented with $4 million coming to Kennedy to ensure America's future competitive edge in science, technology, engineering, and mathematics.

The administrator also discussed the FY 2011 budget, which hasn't yet been passed.

"Your job has been incredibly difficult this year," Bolden said referring to transforming Kennedy into a flexible launch complex of the 21st century, safely flying the remaining three missions of NASA's Space Shuttle Program, and processing the payloads to help maintain the International Space Station.

Cabana wrapped up the All-Hands meeting with a challenge for the work force in regard to the remaining shuttle missions:

"What I charge all of you to do is savor these last three flights. Take great pride in what we do. Enjoy them. You might feel a little bit sad, but you ought to be happy, too. This is an amazing vehicle. What we have accomplished these last 30 years has been truly phenomenal."

Kennedy's reductions

The CMO budget covers various institutional services at Kennedy Space Center. As a result of the continuing resolution and the restrictions associated with this budget, Kennedy faces a CMO shortfall that impacts center services.
They include the following:

- Photographic support will be available for centerwide events only
- ODIN seat configurations will be frozen, except for planned refreshes
- "Spaceport News" will be available online only
- "KSC Bulletin" will be eliminated
- Micrographics capabilities will be reduced, affecting electronic record conversion efforts
- Custodial services will be adjusted
- All major moves and modifications will be on hold for the remainder of FY 2011
- Gates 2 and 4 will be open from 5 a.m. to 9 p.m., weekdays only, except during shuttle launch activities
- Badging Office hours will be from 6 a.m. to 3 p.m.
- Multi-Function Facility Medical Clinic will be closed
- Multi-Function Facility Exercise Facility will be closed
- Operations Support Building Fitness Center will be closed
- KSC Shuttle Bus service will be eliminated
- Laboratory service standard turnaround time will be increased
- Library services will be available online only
- Operations and Checkout Building Graphics Shop will be closed

NASA looks at March 4 for Glory launch

As of press time, the launch of NASA's Glory spacecraft from Vandenberg Air Force Base in California is planned for no earlier than Friday, March 4, at 5:09 a.m. EST.

The launch of the Orbital Sciences Taurus XL rocket was suspended Feb. 24.

On Feb. 23, a false indication was received about the rocket's status after commands were sent about 15 minutes before launch to activate the Taurus.

The following day, managers decided to investigate possible launch opportunities in early to mid-March.

"The Glory spacecraft is doing fine,"said Bryan Fafaul, Glory project manager from NASA's Goddard Space Flight Center in Greenbelt, Md. "We are continuing to slow charge the battery."

Once Glory reaches orbit, it will collect data on the properties of aerosols and black carbon. It also will help scientists understand how the sun's irradiance affects Earth's climate.

NASA/Randy Beaudoin, VAFB

NASA file/1983

Space shuttle Discovery, aboard the Shuttle Carrier Aircraft, arrives at Kennedy Space Center on Nov. 9, 1983.

NASA file/2006

Shuttle Launch Director Mike Leinbach (foreground) cheers following the successful liftoff of space shuttle Discovery, watching it rocket through the sky on the STS-121 mission -- the first-ever Independence Day launch of a space shuttle. At far left is Stephanie Stilson, Discovery's NASA flow director.

NASA file/1998

Space shuttle Discovery carried former U.S. Sen. John Glenn to space during STS-95 on Oct. 29, 1998.

Days of Discovery

By Kay Grinter and Steven Siceloff
Spaceport News

With only seconds remaining, space shuttle Discovery roared off Launch Pad 39A on Feb. 24, 2011, to begin the last of its historic missions. Veteran astronauts led by Commander Steve Lindsey flew the venerable spacecraft to a rendezvous with the International Space Station to deliver important equipment, experiments and supplies, along with Robonaut 2, a unique, humanoid assistant for the orbiting laboratory.

"Glad to be here," Lindsey radioed soon after reaching orbit.

Accompanying Lindsey in space are Pilot Eric Boe and Mission Specialists Alvin Drew, Michael Barratt, Steve Bowen and Nicole Stott.

A problem with an Eastern Range computer cropped up late in the countdown but was remedied just before the launch would have been scrubbed. The four seconds remaining in the window made the launch one of the closest in the Space Shuttle Program's 30 years.

"This was one for the record books," said Mike Leinbach, shuttle launch director. "It may have seemed a little rushed to people on the outside. It's a testament to the team that we have practiced for this."

Mike Moses, chairman of the Mission Management Team and Space Shuttle Program integration manager, said the last-minute nature highlighted how quickly the launch team can adapt to a changing situation. Still, he joked, "I could use a little fewer heart palpitations."

Discovery made up for the delay with a spectacular show of brilliant white and orange fire and crackling thunder. Like so much the shuttle has done before, Discovery left an impression.

"This was Discovery's last, it's a great way to go out," Leinbach said.

On launch day Nov. 5, two problems surfaced: A problem with the ground umbilical carrier plate (GUCP) and a crack in the orange foam near the top of the external fuel tank's midsection. Under the foam, small cracks on the top of two stringers were found.

After an instrumented tanking test Dec. 17, the orbiter was rolled back into the Vehicle Assembly Building on Dec. 21.

To fix the tank, technicians worked around the clock.

Discovery roll out one final time Jan. 31.

Discovery's service to NASA spans 27 years and 39 missions, more than any other shuttle in the fleet.

On its maiden voyage, STS-41D, Discovery transported a crew of six into orbit to deploy three satellites, and test solar array deployment mechanisms for future large space facilities, such as the International Space Station.

Commander Henry Hartsfield, Pilot Mike Coats, Mission Specialists Judy Resnik, Mike Mullane and Steve Hawley, and Payload Specialist Charles Walker made up the crew. STS-41D was the first flight for Coats, Resnick, Mullane, Hawley and Walker.

Launching Discovery for the first time on Aug. 30, 1984, was almost as challenging as launching it on its final mission. It took four attempts.

The first try on June 25 was scrubbed during the T-9 minute hold by the failure of its back-up general purpose computer (GPC).

Now retired, Hartsfield, the only experienced member of Discovery's first crew, told them that they would be able to launch then "unless something really bad happens."

And it did. The second attempt, on June 26, was aborted at T-4 seconds when the GPC detected an anomaly in the No. 3 main engine.

Hartsfield said Discovery started to shake before all the engines shut down on the pad. "Steve Hawley broke the tension," Hartsfield recalled, "by saying, 'I thought we'd be a lot higher at MECO (main engine cut off).' "

Discovery was rolled back to its orbiter processing facility where the troublesome engine was replaced.

A discrepancy noted in the flight software delayed Discovery on its third launch attempt Aug. 29.

A private aircraft intruded into the restricted airspace off Cape Canaveral on Aug. 30, and delayed the launch by about seven minutes, but Discovery was on its way with a jubilant start.

Nor was there a dull moment during the mission.

"Discovery had a new design for its wastewater dump nozzle," Hartsfield said. "An icicle formed at the dump site and didn't melt." The crew had only partial use of the hygiene facility because of the blockage, and more importantly, safety demanded that it be removed before re-entry. Hawley, a professor of Astrophysics at the University of Kansas, recalled: "Before we went to sleep, Mike Mullane and I prepared to do a spacewalk to knock the icicle loose. The ground called up just after crew sleep began and told us we would not be doing an EVA the next day."

In a simulator back in Houston, a procedure to dislodge the icicle using Discovery's robotic arm had been tested. There was concern in Mission Control Center that the icicle would be out of view briefly before contact with the arm, but Hartsfield had experience operating the arm on his first flight, and Resnick also was trained.

In orbit, Hartsfield hit his target. "I saw ice chips fly," Hartsfield said. Hawley agreed: "We knew the procedure was successful when we saw the big chunk of ice floating away."

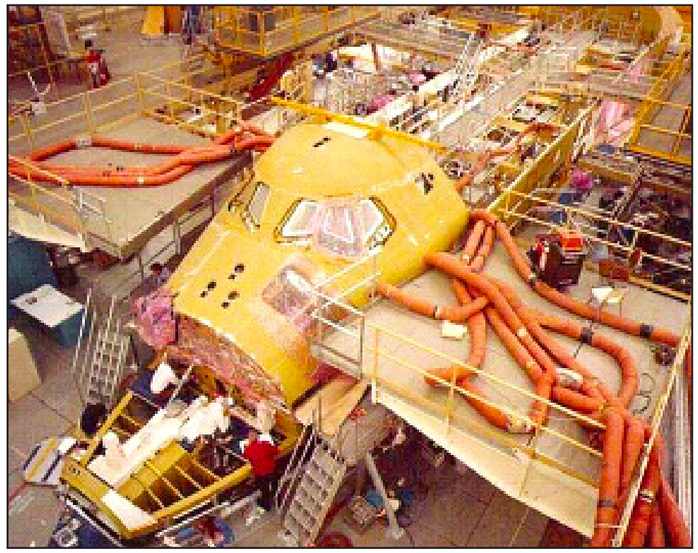
The successful execution of the plan earned the crew the name "Icebusters" for the remainder of the six-day flight.

Coats, now director of the Johnson Space Center, traveled to Kennedy to see Discovery lift off for the last time. He summed up the feelings of many of the astronauts who flew on Discovery: "I have mixed emotions about Discovery's last mission. I'm sad that she will soon be sitting in a museum. At the same time, I'm proud that she has been such a workhorse for us, with more missions than any other orbiter.

"And I'm especially proud of the thousands of dedicated people who built her, prepared her, and operated her for each of her 39 missions. They represent the best our country can produce, and I only wish the public could fully appreciate what this team has done for the last 30 years. Perhaps in due time they will."

NASA file/1984

Space shuttle Columbia on Launch Pad 39A "watches" the picture-perfect ascent of Discovery after liftoff on its STS-31 mission, which carried NASA's Hubble SpaceTelescope on April 24, 1990.



NASA file/1984

Employees work on the flight deck in Discovery's infancy stages in Palmdale, Calif., on Sept. 10, 1982.

NASA/Dimitri Gerondidakis

Space shuttle Discovery during its final "rollover" from Orbiter Processing Facility-3 to the Vehicle Assembly Building on Sept. 9, 2010.

Wanted: 'Catch an Environmentalist' award nominations

By Linda Herridge
Spaceport News

For her historic preservation efforts, Shannah Trout recently received a "Catch an Environmentalist" award from the Environmental Management Branch of Kennedy Space Center's Environmental Program. Trout, with Innovative Health Applications, assisted the Historic Preservation Officer Barbara Naylor with her work identifying, preserving and protecting cultural resources, including historic properties and archaeological sites.

"I was surprised and pleased to have my contributions recognized by my peers," Trout said. "Properties that are listed on the National Register of Historic Places have been put there for their significance in contributing to our nation's history."

This award recognizes individuals and groups who make significant contributions to environmental stewardship.

According to Annie Williams, the Kennedy recycling coordinator and award program coordinator, the award recognizes efforts in waste reduction, historical and archaeological preservation, energy and water conservation, use of sustainable products, sustainable design, construction and operations, and environmental outreach.

"It is important to acknowledge people who go above and beyond their normal duties to take care of KSC's environment, especially those whose work is not directly in the environmental field. It helps employees consider the environmental impacts of their activities," Williams said. An environmental engineer, Trout's recent projects included Orbiter Processing Facility-3 and the Space Shuttle Main Engine Shop; both are eligible for listing on the National Register of Historic Places. Her work included coordinating historic documentations consisting of archival quality photographs and a historical narrative of the facilities and their significance to NASA's Space Shuttle Program

Eugene Haught, a water system design engineer with United Space Alliance, also received a "Catch an Environmentalist" award for his remediation work on the Wastewater Ammonium Perchlorate Station at Hangar AF at Cape Canaveral Air Force Station.

"Even though I have worked on other environmental projects, I was surprised this one was singled out for an award," Haught said. Haught designed and installed new pumps, filters, ion exchange beds and holding tanks to filter out most of the ammonium perchlorate from waste water. The water then is stored in a 21,000-gallon tank until testing can be completed.

According to Haught, if the water meets the Florida Department of Environmental Protection requirements it is transferred to the sewer.

Other nomination categories include education and awareness, fuel efficiency/renewable fuels, natural resources/habitat conservation, waste prevention/reduction/recycling and water conservation.

Nominations are encouraged and accepted any time for workers within and outside the environmental community.

Photo courtesy of Annie Williams, NASA

Eugene Haught, third from left, won the "Catch an Environmentalist" award Dec. 6, 2010, in recognition of his work for his continued support of the Kennedy Space Center Environmental and/or Energy Program. With Haught are, from left Kennedy Recycling Coordinator Annie Williams, United Space Alliance System Design Engineer Jerry W. Smith, and former Kennedy Recycling Coordinator Maggie Forbes.

> *"It is important to acknowledge people who go above and beyond their normal duties to take care of KSC's environment, especially those whose work is not directly in the environmental field. It helps employees consider the environmental impacts of their activities."*
>
> **Annie Williams**
> **Kennedy Space Center Environmental Protection Specialist**

Nominate online

Know someone at Kennedy Space Center who's going above and beyond to protect resources at the center. For a nomination form, go to **https://kems.ksc.nasa.gov/program/awards/caeaward/default.aspx**

Photo courtesy of Richard Beard, Abacus Technology Corp.

Jerry Forney, third from left, won the "Catch an Environmentalist" award June 23, 2010, in recognition of his work on the graphics for America Recycles Day 2009. With Forney are, from left, Environmental Protection Specialist Shawn Fisher, former Kennedy Space Center Recycling Coordinator Maggie Forbes, and Denise DeLaPascua Thaller chief of the Environmental Management Branch.

Photo courtesy of Annie Williams, NASA

Shannah Trout, center, is given the "Catch an Environmentalist" award on Dec. 17, 2010. With Trout are supervisor at the IHA Environmental Program Branch, Curtis Byrd and Kennedy Space Center's Historic Preservation Officer, Barbara Naylor.

AAHM breakfast focuses on education, diversity efforts

By Linda Herridge
Spaceport News

A heartfelt rendition of the National Anthem, sung by Karen Griffin, a contracting officer in the Procurement Directorate, kicked off Kennedy Space Center's African-American History Month breakfast, Feb. 16, at the Debus Conference Facility at the Kennedy Space Center Visitor Complex.

Sponsored by the Black Employee Strategy Team (BEST), the event's theme was "Educate to Innovate," in order to focus on science, technology, engineering and mathematic (STEM) disciplines. Education was the central theme in opening remarks from Kennedy Center Director Bob Cabana, and keynote speaker Dr. Mabel Jones Matthews, manager of the Higher Education at the NASA Office of Education in Washington, D.C.

Cabana said diversity is really important to him and he's tried to be a champion for it at Kennedy.

"When we look at why people are biased, it's because of ignorance. It's a lack of education, a lack of understanding. And it comes down to not having respect," Cabana said. "We should not have biases against people because of their ethnicity, political beliefs, religious beliefs, or anything that makes them different from others.

"Everybody deserves respect. We all bring biases with us as we grow up. And the way to combat those biases is through education. I think that when we look at how we do things better it's through education. If we can educate everybody, think how great a nation we could be."

"Dr. Martin Luther King had a lot of outstanding quotes," Cabana said. "One thing that stands out to me that he said is, 'It's not the bad that people do, it is good people not doing anything.' "

NASA/Kim Shiflett

Keynote speaker Dr. Mabel Jones Matthews receives a special plaque and flowers from the Black Employee Strategy Team (BEST) during the African-American History Month breakfast, Feb. 16, at the Debus Conference Facility at the Kennedy Space Center Visitor Complex. Matthews is manager of Higher Education at the NASA Office of Education in Washington, D.C.

Dr. Jones Matthews said it's always nice to come back to Kennedy, because it's here she considers her second home. Matthews liked the theme of the event, "Educate to Innovate," because it reflects African-American history and the various scientific contributions made.

"It reflects a challenge of achievements and inspiration, and it also reflects the hope for the next generation of African-American scientists and engineers," Matthews said. "I want to speak to you as an African-American woman who has had a lifelong passion for education and providing opportunities for the next generation. I come to you as one who has had a strong commitment to diversity, but an even stronger commitment to inclusion. I come to you as an African-American woman who advocates for all students."

Matthews said she has a very special interest in those students who are underserved, underrepresented and disadvantaged across the nation and across the globe because STEM talent is there waiting to be tapped into.

"I have a strong interest in international outreach in education. Considering your theme, 'Educate to Innovate,' today I chose a topic 'Innovate to Educate.' I want to begin with a challenge. I want to challenge all of you here today to personally commit to innovatively educate at least one disadvantaged and underserved child this year," Matthews said. "I want you to join me in viewing black history month beyond the month of February. I want us to look at how we as individuals might impact the future black history, and how we can do this by choosing to innovatively educate."

Matthews said she wanted to focus on those considered invisible. She said they have different profiles, different mindsets, different hopes, fears and dreams.

David Banks, in Kennedy's Logistics and Services Branch of Center Operations, gave a tribute and presented BEST certificates of appreciation to 11 current and former Brevard County educators who were nominated by Kennedy workers.

"In our society today, I cannot think of a single group of individuals that have such a burden placed on them in terms of expectation from the community at large. Teachers are tasked with preparing our young people for the future, for an appropriate place in society," Banks said. "So often the job seems to be almost thankless. The greatest gift that they get is from the students who come back and tell them, 'you made a difference in my life; you helped me turn a corner when I wasn't sure which way to go.'"

Michelle Amos, from Kennedy's Engineering and Technology Directorate, announced this year's recipients of the Evelyn Johnson Scholarship. They are James Woods III, a Kennedy student trainee in administration and a senior at the University of Central Florida; Ciara Dupke, a senior at Space Coast Junior/Senior High School and student trainee in the Safety and Mission Assurance Directorate; and Tajae Bodrick, a senior at Rockledge High School.

The event closed with "Lift Every Voice and Sing," sung by Dionne Jackson from Kennedy's Materials Engineering Division.

NASA/Kim Shiflett

Three students received the Evelyn Johnson Scholarship during the African-American History month breakfast, Feb. 16 at the Debus Conference Facility at the Kennedy Space Center Visitor Complex. From left are, Michelle Amos, BEST Evelyn Johnson Scholarship chairwoman; recipient James Woods III; Woods' mentor Gloria Murphy from Kennedy's Education Office; recipient Ciara Dupke, with her mother Sharon Alexander; and recipient Tajae Bodrick, and his parents Lori and Terris Bodrick.

Scene Around Kennedy Space Center

NASA/Jack Pfaller

Kennedy Space Center's Disability Awareness and Action Working Group (DAAWG) sponsors a "Silent Lunch" in Room 2126 at Headquarters on Feb. 16. Here, Kennedy's Executive Resources Program Manager Lisa Arnold explains the purpose of the lunch as Kennedy's COTS Project Manager Steve Cain and his daughter, Suzanne Cain, look on. The event provided an opportunity for workers to "turn off their voice" and improve their sign language skills by submerging themselves in a deaf environment.

Looking up and ahead . . .

No Earlier Than March 4	Launch/VAFB: Taurus, Glory; 5:09 a.m. EST
No Earlier Than March 4	Launch/CCAFS: Atlas V, OTV 2; TBD
No Earlier Than March 11	Launch/CCAFS: Delta IV, NROL-27; TBD
Targeted for April 19	Launch/KSC: Endeavour, STS-134; 7:48 p.m. EDT
No Earlier Than April 30	Launch/CCAFS: Atlas V, SBIRS GEO-1; TBD
No Earlier Than June 23	Launch/CCAFS: Atlas V, GPS IIF-2; TBD
No Earlier Than June 9	Launch/VAFB: Delta II, Aquarius / SAC-D Satellite; TBD
Targeted for June 28	Launch/KSC: Atlantis, STS-135; 3:48 p.m. EDT
No Earlier Than July 15	Launch/CCAFS: SpaceX Falcon 9, Dragon C2; TBD
Aug. 5	Launch/CCAFS: Atlas V, Juno; Launch Window 12:10 to 1:40 p.m. EDT
Sept. 8	Launch/CCAFS: Delta II Heavy, GRAIL; 8:35:52 a.m. to 9:14:35 a.m. EDT
No Earlier Than Oct. 9	Launch/CCAFS: SpaceX Falcon 9, Dragon C3; TBD
Oct. 25	Launch/VAFB: Delta II Heavy, NPP; TBD

WORD ON THE STREET

What is your favorite part about launch day?

"The atmosphere is just incredible. It's such an amazing team effort that comes together."

Dr. Marc O Griofa,
with Innovative Health Applications

"The butterflies in my stomach. It's all the work we've done together coming to fruition."

Sabrena Yedo,
with NASA

"Believe it or not it's when the elevator works before walkout. Out team's name is on that elevator."

Kevin Carter,
with Yang Enterprises

"The people I get to come in contact with from around the center. It's just so much fun."

Roxane Jennings,
with Lackmann Culinary Services

"Seeing the astronauts come out of the O&C Building and get in the van. It's great to admire them from close."

Rick Rapson,
with NASA

John F. Kennedy Space Center

Spaceport News

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